

A New Method of Inspecting the Welded Joints of
Austenitic Steel Steam Pipes, by M. R. Gubanov,
V. P. Pashkin. UNCLASSIFIED

RUSSIAN, per, Energomashinostroenie, Vol III, No 5,
May 1957, pp 22-25.

SLA 59-21557
Navy Tr 1653/Buships 640

Sci - Engr
Mar 58

59,753

REC TO 3/11
10-44-51

A Double-Bladed Water Turbine, by Sh. P.
Vikhlanovskiy.

RUSSIAN, per, Energomashinostronnie, Vol III, No 8,
1957, pp 1-4.

Co-op Tr Sch Tr 422

Sci - Engr
Mar 58

59,347

Generalised Characteristics of Butterfly
Valves With Flattened Discs, by I. B. Yan'shin.

RUSSIAN, per, Enorgomash, No 9, 1957, pp 18-21.

MLL M 3892

Sol - Electron
Mar 63

224,606

Deflections and Stresses in Welded Composite
Diaphragms With Narrow Blades, by U. G. Koifman,
V. D. Pshenichniy.

RUSSIAN, per, Energomash, Vol III, No 9, 1957,
pp 30-34.

DSIR IJU M.1913
(loan)

Sci - Engr

Oct 60

130,751

Determination of the Resistance of Materials to
Cavitation by Means of a Magnetostriction Vibrator,
by M. M. Pisarevskiy, A. F. Erashov, 8 pp.

UNCL

RUSSIAN, por, Energomash, No 9, 1957, pp 38, 39.

Sci Mus Lib 58/1531

Sci - Electronics; Phys
Mar 59

NIC M 25 82 P50069268-V

82,444

Defects in the Experimental Determination of the
Efficiency of Water Turbines and Other Hydromachines,
by N. M. Shchapov, UNCL

RUSSIAN, per, Energomash Stroenie, No 10, 1957,
pp 23-26.

DSIN/32848/CT

See Index Lib 1171

Sci - Engr
Feb 59

81,428

CONTACTLESS STRAIN GAUGE, BY K. V. FROLOV.

RUSSIAN, PER, ENERGOMASH, VOL. 111, NO 12,
1957, P 42.

NLL M. 4777

SCI - ENGR

JUL 62

203,009

Calculation of Heat Transfer to Water and Steam
Near the Critical Point, by Z. L. Miropolskiy, M. E.
Shitsman.

RUSSIAN, per, Energomashin, Vol. IV, No 1,
1958, pp 8-11.

✓
X *UKAEA Windscale Tr 53

on loan only

Sci - Phys
May 63

The Calculation and Aerodynamic Testing of
Regulating Valves, by S. N. Shkarbul. UNCL

RUSSIAN, per, Energomashinostroyeniye, No 1,
1958, pp 12-15.

DSER 34163/CT

Sci - Engr
Mar 59

83,389

60-23034

Stopkiy, S. V.
THE EFFECT OF FLOW EXCITATION ON THE
DEVELOPMENT OF CAVITATION IN HYDROTUR-
BINES (Vliyaniye Vozmushcheniy Potoka na Razvitiye
Kavitatsii v Gidroturbinakh). Aug 58 [16]p. (foreign
text included) 9 refs. M1392.
Order from LC or SLA m\$2.40, ph\$3.30 60-23034

Trans. of Energomashinostroyeniye (USSR) 1958 [v. 4]
no. 3, p. 24-27.

Experiments show that under conditions of strong
excitation during cavitation the turbine efficiency
increases.

(Engineering--Mechanical, TT, v. 5, no. 3)

1. Turbines--Cavitation
 2. Vibration--Physical effects
 3. Cavitation--Acoustic factors
- I. Stopkiy, S. V.
 - II. DSIR LLU M.1392

Office of Technical Services

Comparative Erosion-Resistance Tests on Some Types of
Steel and Cast Iron, by Z. P. Shulman. UNCLASSIFIED

RUSSIAN, per, Energomashinostroyeniye, ~~Vol~~ No 4, 1958,
pp 32-35.

*DSIR/TCL 113

Sci - Min/Met
Nov 58

Flow Round a Butterfly Valve and the Effect of
Its Impact on the Valve, by B. I. Yan'shin.
RUSSIAN, per, Energiya, No 5, 1958, pp 6-9.

ILL M 3891

Sci. - Elektron
Mar 63

226,605

Measurement of Attenuation Decrements with a
Magnetic Induction Pickup.

RUSSIAN, per, Energomashinostroenie, No. 6
1958, pp. 16-19.

CIA X 7106

Nov 69

396,051

The Coefficients of the Transfer of Heat to Boiling
Water at Excessive Pressures, by V. M. Borishanskiy.
UNCL

RUSSIAN, per, *Energomashinostroyeniye*, No 7,
1958, pp 5-9.

DSIR LIU RTS 1074
12a. 64.

Sci - Phys
Sep 59

95, 858

Calculation of the Effect of Body Thickness in the
Blade Design and Profiling of the Blades of Radial-
Axial Hydroturbine Engines, by M. Ya. Baier. UNCL

RUSSIAN, Izv. Energomash, No 7, 1958, pp 16-18.

DSIR IJA IETS 1299

(7c. 6a.)

Sci - Engr

Mar 60

111,086

THE NITRIDING OF E1723 AND 15KH11MF
STEELS FOR HIGH TEMPERATURE OPERATION, BY
YA. M. GITEL'ZON, ET AL.

RUSSIAN, PER, ENERGOOMASHIN, VOL IV, NO 7,
1958, PP 32-35.

DSIR RTS 1837

SCI - ENGR

173,186

NOV 61

Analytical Determination of the Coefficient of
Disk Friction in the Turbulent Region, by N. N.
Kupryashin, 8 pp.

RUSSIAN, per, Energomash, Vol IV, No 8, 1958,
pp 17-19.

ATB-75L36R

Sci

RJ-2120

OTS, Vol III, No 8

Apr 61

145,136

Design of Jet Jumps (Ejectors, by XXXXX
S. A. Antonovich, 18 pp.

RUSSIAN, per, Energomashinostroy, No 9,
1958, pp 8-13. 9678090

FTD-TT-62-449

Sci - Engr
Sep 62

209,701

Measurement of the Intensity of Acoustic Radiation
in Water Flow During the Cavitation, by L. S.
Shanglyakov. UNCL

RUSSIAN, per, Energomash, No 9, 1958, pp 23-27.

DSIR LIJ RTS 1002
12a. 6d.

Sci - Phys
May 59

87, 894

Butterfly Valves for High Heads, by B. I. Yan'shin.

UNCL

RUSSIAN, per, Energomashinostroyeniye, No 11,
1958, pp 20-24.

DSIR 1111 PTS 1085

12a. 6a.

95,843

Sci - Engr
Sep 59

The Soviet 3,000 H.P. Diesel Engine (D-100)
Series for Naval Propulsion and Railway
Traction; Rational Methods of Blowing the
9-D-100, 3,000 H.P. Engine; Tests on the New
3,000 H.P. Traction Diesel Engine (9-D-100), by
A. S. Koshkova, B. N. Strunge, 5 pp.

RUSSIAN, per, Energomash, Vol IV, No 11, 1958,
pp 31-35, Vol V, No 1, 1959, pp 42-44. (abstracts).

SLA 60-13890

Sci
Vol IV, No 8
29 May 62

198,238

(2238-S)

Branch Conference on High-Temperature Materials, by
L. Ya. Izbuzman, Is. Ya. Levin, 10 pp.

REBILAN, per, Energiya i Stroyeniye, No 11,
Leningrad, 1958, pp 40-41.

JPRS 1302-N

UHR
Rechn
Mar 59

82,976

The Effect of Flow Rotation and Angle of
Attack on the Inlet Side of a Centrifugal
Compressor Rotor, by S. P. Livshits. UNCL

RUSSIAN, per, Energiomash, No 12, 1958,
pp 15-20.

DSIR LIU RTS 1219

(22a. 6a.)

Sci - Engr
Feb 60

107 214

Shubenko-Shubin, L. A.

MOVING BLADES IN THE LAST STAGES OF HIGH-
POWER SOVIET TURBINES (Rabochie Lopatki
Poslednikh Stupeni Sovetskikh Moshchnykh Parovykh
Turbin). Feb 62 [20]p. RTS 2002.

Order from OTS or SLA \$1.60

62-15838

Trans. of Energomashinostroenie (USSR) 1959 [v. 5]
no. 1, p. 3-8.

DESCRIPTORS: Steam turbine blades, Steam turbine
rotors, *Steam turbines, Design, Stresses, Vibration,
*Turbines.

A short survey is presented of the work carried out
at the S. M. Kirov Kharkov Turbine Works on the
design of rotor blades for the last stages of VKT-100
and FVK-150 turbines.

(Machinery--Engines, TT, v. 7, no. 10)

62-15838

- I. Shubenko-Shubin, L. A.
- II. RTS-2002
- III. Department of Scientific
and Industrial Research
(Gr. Brit.)

Office of Technical Services

Method for the Comparison of Bundles of Tubes
With Wire Ribs, by A. P. Salikov, et al.

RUSSIAN, per, Energomashinostroyeniye, No 1,
1959, pp 20, 21.

*AEC

Sci - Engr
Apr 62

Investigation of the Pressure and Stresses
Acting on the Runner Blade of Hydraulic
Turbines at the Narva Hydroelectric Power
Station, by N. N. Kovalov, et al. UTKL

RUSSIAN, per, Energiomash, No 1, 1959,
pp 29-32.

DSIR LIAU RTS 1113

10s. Od. anywhere

99,454

Sol + Ingr
Oct 59

Investigation of the Temperature Distribution and
Axial Clearances in Steam Turbines Under Operating
Conditions, by N. M. Gorelkin.

RUSSIAN, per, ~~Energomashinostroenie~~, No 2, 1959,
pp 1-9.

Sci - Engr

Nov 59

~~SECRET~~
Informant's file
re EM-59/2.1

On the Calculation of the Strenght of Volutes of
Centrifugal Pumps, by M.A. Rudis.

RUSSIAN, per, Energomashinostroenie, Vol 5, No 2, 1959, p
p 4-12

NLL/2301.91 1960 657

Sci -

Aug 67

336,848

Methods of Increasing the Quality of Manufacture
and Operation of Turbine Gear Reductors, by
A. M. Korniyenko, 10 pp.

RUSSIAN, per, Energomashinostroy, Vol V, No 2,
1958, pp 34-39.

9

5

ATS-12138R

Sci
Sep 61

169, 129

RJ - 1321

On the Problem of the Design of High Speed
Hydraulic Turbines, by T. A. Alexandrova,
N. S. Chechel'.

RUSSIAN, per, Energomashinostroyeniye, Vol V,
No 3, 1959, pp 13-17.

DSIR LIU RTS 1321

Sci - Engr

Oct 60

128,733

Notch Sensitivity During Creep, by I. I. Trunin.

GE RUSSIAN, per, Energomashinostroenie, Vol V,
No 4, 1950, pp 21-26.

AEI T/1469

Sci
Jun 63

The VKT-100 Khar'kov Turbine Plant, by
A. V. Lazarenko.

RUSSIAN, per, Energomashinostroyeniye,
Vol. V, No. 6, 1959, pp 1-7.

NLL Ref: 9022.03 1964 (3367)
(loan copy)

Sci
Sep 64

Thermal Resistance of Turbine-Blade Root Joints,
by O. T. Il'chenko, V. M. Kapinos.
RUSSIAN, per, Energomashinostroeniye, Vol V, No 6,
1959, pp 23-26. 9694895
DDC R31C261

FTD-77-65-680
CFSTI - IT 64-71435
Sci - Engr
Oct 64

268,321

(NY-3085).

Conference on the Static Strength of Turbo-Machine
Elements, by V. I. Rozenblyum/ 3 pp.

RUSSIAN, per, Energomashinostroy, No 6, 1959, p 30.

JPRS-2153-N

Sci - Eng
Jan 60

106,091

Effect of Degree of Reaction on Energy Losses
in a Turbine Stage, by I. I. Kirillov,
R. V. Kuzmichev.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 1-7.

DSIR LLU M.1736
(loan)

Sci - Engr

Oct 60

130,749

Investigation of Double-Crown Velocity Stages in
Steam Turbines, by Yu. Ya. Kachuriner.

RUSSIAN, per, Energomashinostroenie, Vol V, No 7,
1959, pp 7-12.

DSIR LIJ M.1886
(loan)

Sci - Engr

128,900

Oct 60

Nozzle Efficiency in Diaphragms With Narrow
Blades, by M. F. Fedorov, Yu. I. Pogorelov.

RUSSIAN, per, Energomaash, Vol V, No 7, 1959,
pp 12-14.

DSIR LHM M.1830
(loan)

Sci - Engr

Oct 60

130,748

A Method For Designing Turbine Blade Grids,
by M. I. Zaukovakiy.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 14-18.

DSIR ALU M.1794
(loan)

Sci - Engr

Oct 60

130,747

The Theoretical Basis for the Selection of
Permissible Surface Roughness in the Manufacture
of Turbine Blades, by N. M. Markov.

RUSSIAN, per, ~~Engergomash~~, Vol V, No 7, 1959,
pp 18-22.

DSIR LIU M.1411

(loan)

OTS 60-17287

130,746

Sci - Engr

Oct 60

On the Leakage Through the Axial Clearance
in a Turbine Stage, by A. M. Zavadovsky.

RUSSIAN, per, Energomash, Vol V, No 7, 1959,
pp 26, 27.

DSIR LLU M.1737
(loan)

Sci - Engr

Oct 60

130,745

Improving the Profiles of Long Blades in Steam
Turbines, by D. I. Marozov.

RUSSIAN, per, Energomashinostroenie, Vol V, No 7,
1959, pp 28, 29.

DSIR LIU M.1735
(loan)

Sci - Engr

Oct 60

128,901

The Effect of Starting Conditions on the Strength
of Turbine Discs, by A. P. Dinerman.

RUSSIAN, per, Energomashinostroyeniye, Vol V, No 8,
1959, pp 31-34.

DSIR LLU M.1973
(loan)

Sci - Engr

Oct 60

130,755

61-23039

Bordukov, V. T.
THE USE OF TURBOCHARGERS WITH A VARIABLE-
NOZZLE TURBINE IN DIESEL ENGINES (Primeneniye
Turbokompresora za Reguliruemoy Turbinoy dlya
Nadava Diesel). June 61 [11 p. 2 refs. RTS 1848.
Order from OTS or SLA \$1.60 61-23039

- I. Title: Turbocharging
- I. Bordukov, V. T.
- II. RTS-1848
- III. Department of Scientific
and Industrial Research
(Gr. Brit.)

Trans. of Energomashinostroyeniye (USSR) 1959 [v. 5]
no. 9, p. 6-8.

DESCRIPTORS: *Diesel engines, *Turbines,
*Turbosuperchargers, *Gas turbine nozzles.

An investigation of various types of turbochargers and
of the operation of the engine with a variable-nozzle
turbocharger leads to the following conclusions. In
charging small engines the best results are obtained by
using turbochargers with a radial centripetal turbine
because this unit has a high efficiency, the turbine
wheels are cheap and easy to make (especially by using
precision casting techniques), and because its speed
(Machinery--Engines, TT, v. 6, no. 3) (over).

Office of Technical Services

Kryukov, V. V.
PRINCIPAL FACTORS DETERMINING THE EFFICIENCY OF TURBOCHARGING IN TWO-STROKE ENGINES (Osnovnye Usloviya Opredelyayushchie Effektivnost' Sistemy Gasoturbinnogo Nadduva Dvukhtaktnogo Dvigatelya) July 61 (8)p. RTS 1849.
Order from OTS or SLA \$1.10 61-23665

Trans. of Energomashinostroenie (USSR) 1959, v. 5, no. 9, p. 14-16.

DESCRIPTORS: *Turbines, *Turbochargers, Effectiveness.

The generalized efficiency of a gas turbocharging system is determined. Structural details are discussed and the method of evaluation based on the efficiency of the system supplying gas to the turbine is described.
(Author)

(Machinery--Engines, TT, v. 6, no. 6)

61-23665

- I. Kryukov, V. V.
- II. RTS-1849
- III. Department of Scientific and Industrial Research (Ot. Brit.)

176657

Office of Technical Services

Investigation of the Blade Diffusers of
Centrifugal-Compressor Machinery, by G. N. Den.
RUSSIAN, per, Energomashinostroenie, No 10, 1959,
pp 3-7.

AEC

Sci
Mar 64

Results of an Experimental Investigation into
~~Un~~Unstable Operating Conditions of Compressors,
by V. N. Ershov.
RUSSIAN, per, Energomashinostroenie, No 10, 1959,
pp 8-10.

AEC

Sci
Mar 64

Investigation of Steel Grades and the
Manufacture of Welded Steel Shafts of
Large Water Turbines, by A. S. Gal'man,
I. R. Bryunin, V. V. Levando, et al, 12 pp.

RUSSIAN, per, ~~Eneryumashinostroenie~~, No 12,
1959, pp 38-37. 9099510

ONS 60-5113A
PL-480

192,458

Bo1 Engr

STEAM-GAS-TURBINE PLANT OF 175 - 200MW CAPACITY
WITH HIGH PRESSURE STEAM GENERATORS, BY M. I.
KORNEYEV, V. P. DROBOT.

RUSSIAN, PER, ENERGOMASH, VOL VI, NO 1, 1960,
PP 17-21.

NLL M. 6333

SCI - ENGR

NOV 62

217,687

Selection of Optimal Unit Capacities for Large
Tandem-Compound Steam Turbines, by A. V. Levin.

RUSSIAN, per, Energomash, Vol VI, No 1, 1960,
pp 26-32.

DSIR LIU M.2017
(loan)

Sci - Engr

Oct 60

130,744

Zver'kov, B. V.
CREEP OF TUBES UNDER COMPLEX LOADS. [1960]
Sp. M16X)

Order from LC of SLA m\$1.80, ph\$1.80 61-13210

Trans. of Energi mashinostroyeniye (USSR) 1960, v. 6
[no. 1] p. 33-35.

142,892

61-13210

1. Steel tubing--Creep
2. Steam pipes--Creep
1. Zver'kov, B. V.
- II. DSR LLM M. 1890

Office of Technical Services

(Engineering--Mechanical, TT, v. 5, no. 2)

Certain Results of Experimental Research Concerning
Moisture-Catching Machinery in Steam Turbines, by
A. N. Astaf'ev, 6 pp.
RUSSIAN, per, Energomashinostroyeniye, Vol VI, No 2,
1960.

Navy Tr 3720/BuShips 838

Sci - Engr
Mar 64

250,952

A STUDY OF THE LOCAL HEAT TRANSFER OF A GAS-
TURBINE PROFILE, BY G. S. AMBROK, 9 PP.

RUSSIAN, PER, ENERGOMASHINOSTROY, NO 2, 1960,
PP 29-31. 0065939

FTD-TT-62-454

SCI - ENGR
AUG 62

207,961

(NY-2900/10)

The Technical Progress of Hydroturbine Building at
the Leningrad Metal Plant in 1959-1965, by G. S.
Shchegolev, 7 pp.

RUSSIAN, per, Energomashinostroyeniye, No 3, 1960,
pp 1-4.

JPRS 5032

USSR

Econ - Technological

121,536

Aug 60

Computation of Natural Frequencies of Vibrations of Francis Turbine Runners, by A. Ya. Aronson, 15 pp.
RUSSIAN, per, Energomashinostroyeniye, No 3, 1960, pp 8-12.
CFSTI TT 67-59018

Sci-Energy Conversion
Oct 68

366,119

61-23274

Kostovetskii, D. L.
EFFECT OF ORIGINAL ELLIPTICITY OF A SECTION ON THE FLEXURE OF A CURVED THIN-WALLED PIPE (Yanli Nachal'noi Elliptichnosti Secheniya na Izgib Narivoi Tonnoytennoi Truby). [1961] [14 p. (foreign text included) 2 refs. [DSIR LLU] M. 2604.

Order from OTS or SLA \$1.60

61-23274

Trans. of Energomashinostroenie (USSR) 1960, v. 6, no. 3, p. 23-27.

DESCRIPTORS: *Pipes, Deformation, Stresses, Moments, Pressure.

Approximate formulae are derived for the determination of stresses in a curvilinear segment of a thin-walled pipe of slightly elliptical section, in the case of the simultaneous operation of bending moments and internal pressure. The adduced results of the calculation of two pipes demonstrate the substantial effect of the original ellipticity of the section.

I. Kostovetskii, D. L.
II. DSIR LLU M. 2604

177700

Office of Technical Services

(Mechanics, TT, v. 6, no. 4)

61-15465

Sheval'skiy, R. and Vechorek, B.
NEW DESIGN OF LOW PRESSURE DIAPHRAGMS
FOR STEAM TURBINES. [1960] [10p. 8 refs.
[DSIR LLU] M. 2324.
Order from LC or SLA m\$1.80, ph\$1.80 61-15465

Trans. of Energiya [inostroyeniye] (USSR) 1960
[v. 6] Mar. p. 32-35.

A description is given of a new design for a blade of sheath type for low pressure diaphragms of high power steam turbines. The blade is joined to the body of the diaphragm either by welding or filling the cavity with the same material used for the body of the diaphragm. A short description is presented of preliminary efforts to devise a simple, reliable and economic production technique. (Author)

(Engineering--Mechanical, TT, v. 5, no. 12)

1. Steam turbines--Design
2. Diaphragms (Mechanics)--Design
1. Sheval'skiy, R.
- II. Vechorek, B.
- III. DSIR LLU M. 2324

10061c

Office of Technical Services

Investigating the Temperature Field of a
Cooled Steam Turbine Rotor, by Ye. I. Bublikov,
V. M. Kapinos, 15 pp.

RUSSIAN, per, Energomashinostroy, No 4, 1960,
pp 8-12. 9670229

ATIC WCL-335/1

Sci - Engr

Jul 61

160,783

Investigation of Active Stages With Partial
Admission of the Working Medium, by I. K.
Terent'ev.

RUSSIAN, per, Energomashin, Vol VI, No 4, 1960,
pp 15-17.

NLL M. 2603

Sci - Phys

Jan 62

180,047

Pump Vibration Caused by Cavitation,
by G. A. Khoroashov, 15 pp.

RUSSIAN, per, Energomashinostroyeniye, No 4,
1960, pp 26-30. 9676145

FID-TT-61-179

Sci - Engr

5 Apr 62

189, 771

A Diffuser With Transverse Ribbing, by
V. K. Migai.
RUSSIAN, per, Energomashinostroyeniye,
No 4, 1960, p 31.
NLL Ref: 5828.4 1964 (10,450) (loan copy)

Sci
Aug 64

Markov, N. M. and Dobrokhetov, V. D.
THE RESULTS OF THE INVESTIGATION OF VE-
LOCITY STAGES. [1961] 12p. [DSR L.11] M.2702.
Order from ODS or SLA \$1.60 61-23535

Trans. of Energoizobrazovaniye (USSR) 1960
[v. 6] no. 5, p. 21-23.

DESCRIPTORS: *Turbines, Turbine blades, Tests,
Velocity.

Experiments at the Central Research Institute for
Boilers and Turbines showed that the velocity stages
with two rows of working blades are very economical.
With a 20-mm nozzle height and with radial seals pres-
ent the efficiencies of the two stages are 79% or better.
The effect of the first stage, having a degree of re-
action across the first row of moving blades of almost
zero, depends very little on the state of the radial
seals.

(Engineering--Mechanical, TT, v. 6, no. 4)

61-23535

I. Markov, N. M.
II. Dobrokhetov, V. D.
III. DSR L.11 M.2702

177721

Office of Technical Services

Troyanovskiy, B. M., Kiselev, L. Ye., and
Filippova, V. G.

METHOD FOR CALCULATION OF DOUBLE-ROW
VELOCITY STAGES, tr. by J. K. Skwirzynski. [1961]
[19p. 8 refs. [DSIR LLU] M 2701.

Order from GTS or SLA \$1.60

61-23534

Trans. of Energomashtrostroyaniye (USSR) 1960, v. 6,
no. 5, p. 1-6.

DESCRIPTORS: *Steam turbines, Velocity.

Graphs and formulae are presented for determining the
efficiency of a double-row velocity stage with complete
and with partial steam admission in a wide range of
geometric and physical parameters. The method was
developed for application to the velocity stage of the
Moscow Institute for Power Engineering and is used
with a combination of blade grids (patterns) KS-1A and
KS-1B. (Translator)

(Engineering-Mechanical, TT, v. 6, no. 3)

61-23534

1. Title: Double-row
velocity stages
2. Title: Turbine staging
1. Troyanovskiy, B. M.
- II. Kiselev, L. Ye.
- III. Filippova, V. G.
- IV. DSIR LLU M. 2701

175382

Office of Technical Services

An Instrument for Measuring ~~the~~ Torque, Speed
and Power on High-Speed Turbines, by M. Ye.
Deych, A. Ye. Zaryankin,

RUSSIAN, per, Energomashinostroyeniye, No 5,
1960, pp 43-47.

*FTD-TT-61-443

Sci - Engr

Dec 61

Heat Exchange During Bubble Boiling
P. I. Minchenko, 13 pp.

RUSSIAN, per, Energiya, no 4, 1961
pp 17-21 967307

FTD-TI-61-558

Sci. - Phys

/ 8 1 1 3 1 1

24 Jan 62

A Study of Nitrided 15Kh 11 Mf and 15Kh 12VMF Steels
After Prolonged Holding at 570°C, by A. V.
Kostenko, et al.

RUSSIAN, per, Energomashinostroyeniye, No 6, 1960,
pp 33-36.

DSIR RTS 1788

Sci

Aug 61

163,158

61-23533

Levin, A. V.
 COMPUTATION OF THE FREQUENCIES OF CHARACTERISTIC VIBRATIONS OF BLADED DISKS WITH NATURALLY TWISTED BLADES (Vychislenie Chastot Sobstvennykh Kolebaniy Obloquchennykh Diskov s Estestvenno Zakruchennymi Lopatkami) (r. by G. J. Tee [1961] [14 p. (foreign text included) 2 refs. [DSIR LLU] M. 2700.
 Order from OTS or SLA \$1.60 61-23533

I. Levin, A. V.
 II. DSIR LLU M. 2700

Trans. of Energomashinostroenie (USSR) 1960, v. 6, no. 7, p. 1-5.

DESCRIPTORS: *Disks, Vibration, Frequency, Mathematical analysis.

A method is presented for computing the frequencies of characteristic vibrations of bladed disks with naturally twisted blades. The consideration of the twisting of the blades noticeably reduces the frequency of vibrations of disks, and gives values for the frequencies close to the experimental values.

Office of Technical Services

(Mechanics, TT, v. 6, no. 4)

ALL REF 9022031263 (3294) (LOAN)

Turbine-Rotor Flexion in Passing Through
the First Critical Speed, by M. I.
Lappa.

RUSSIAN, per, Energomashin, Vol VI,
No 7, 1960, pp 9-12.

HLL M.4009

Sci - Engr

Feb 62

186,578

(NY 2900/30).

A Compressor of the Nevskiy Machine Building Plant
imeni Lenin, by O. M. Kiselev, 1 p.

RUSSIAN, per, Energomash, July 1960, p 18.

*JPRS 7764

USSR

Econ - Technological - Machine Building

27 Sep 60

Zavadoyskii, A. M., Babenko, Kh. L., and
Agafonov, V. A.

FORMING THE STAGES OF TURBINE BY MACHIN-
ING THE BLADES OF THE ORIGINAL STAGE. [1961]
[8]p. 1 ref. C. E. Trans. 1969; [DSIR LLU] M. 4016.
Order from OTS or SLA \$1.10

61-28188

Trans. of Energomashinostroenie (USSR) 1960, v. 6,
no. 7, p. 19-21.

DESCRIPTORS: *Turbine blades, Machining, Aero-
dynamics, Turbines, Operation, Design

Aerodynamic properties are derived for a series of
stages formed by machining the blades of the original
stages. (Author)

(Machinery--Engines, TT, v. 6, no. 11)

61-28188

- I. Zavadoyskii, A. M.
- II. Babenko, Kh. L.
- III. Agafonov, V. A.
- IV. CE Trans-1969
- V. DSIR LLU M. 4016
- VI. Central Electricity
Generating Board
(Gt. Brit.)

120740

Office of Technical Services

(NY-2900/30)

Scientific and Technical Conference on the
Exchange of Know-How in Starting and Adjusting
Gas Turbine, by Yu. P. Graebov, 6 pp.

RUSSIAN, per, Energomash, No 7, 1960, pp 27, 28.

JPRS 7764

Sci - Engr

Mar 61

142,092

61-19222

Verbin, D. S. and Shepilevskiy, V. M.
 AUTOMATIC CARBON-DIOXIDE-SHIELDED ARC
 WELDING OF STEAM TURBINE DIAPHRAGMS AT
 THE Leningrad ENGINEERING WORKS (Avtomati-
 cheskaya Svarka Diafragm Parovykh Turbin v Srede
 Uglerodnogo Gaza na LMZ). Mar 61 [11]. RTS 1789.
 Order from LC or SLA ml\$1.80, ph\$1.80 61-19222

Trans. of Energomashinostroyeniye (USSR) 1960 [v. 6]
 no. 7, p. 29-31.

The short experience with the automatic welding of
 steam turbine diaphragms with a carbon-dioxide-
 shielded metal arc shows that this method is an effec-
 tive means of increasing the productivity of labour and
 for improving the quality of production, which in the
 near future will completely replace the manual welding
 of these components at the Leningrad Works. (Author)

(Machinery--Manufacturing, TT, v. 5, no. 12)

1. Arc welding--USSR
2. Steam turbines--Equipment
3. Diaphragms (Mechanics)--
welding
- I. Verbin, D. S.
- II. Shepilevskiy, V. M.
- III. RTS-1789
- IV. Department of Scientific
and Industrial Research
(Gt. Brit.)

160950

REF ID: A62021

Office of Technical Services

Kosyak, Yu. F. and Savukov, V. P.
 COMBATING EROSION IN THE LATER STAGES OF
 LARGE TURBINES. [1961] 9p. 6 refs. C.E.
 Trans. 1856; [DSIR LLU] M. 4013.
 Order from OTS or SLA \$1.10 61-28186

Trans. of Energomashinostroenie (USSR) 1960, v. 6,
 no. 7, p. 35-38.

DESCRIPTORS: *Turbines, Operation, Maintenance.
 *Turbine blades, Erosion, Countermeasures.

Results of studying the erosion of turbine blades in
 the later stages of the VKT-100 type turbines at the
 Kharkovsk turbine plant obtained from examination
 of turbines after one full year's service are given.
 Erosion seems to be a function of the energy loss of
 the rotor under the impact of the comparatively slow
 moving drops of moisture. By studying the moisture
 distribution of the blade length and comparing the
 (Machinery--Engines, TT, v. 6, no. 12) (over)

61-28186

- I. Kosyak, Yu. F.
- II. Savukov, V. P.
- III. CE Trans-1856
- IV. DSIR LLU M. 4013
- V. Central Electricity
 Generating Board
 (Gr. Brit.)

1821/1

Office of Technical Services

Mikhailov, O. N.

CALCULATION OF THE NATURAL FREQUENCIES
OF VIBRATION OF ARRAYS OF STEAM-TURBINE
BLADING (K Raschetu Chastot Sobstvennykh Kolebaniy
Paketov Lopatki Parovykh Turbin). July 61 [10]p.
5 refs. RTS 1869.

Order from OTS or SLA \$1.10

61-27300

Trans. of Energomashinostroenie (USSR) 1960 [v. 6]
no. 8, p. 22-26.

DESCRIPTORS: *Steam turbine blades, Vibration,
Mathematical analysis, Turbine blades.

A new method is proposed for calculating the natural
frequencies of vibration of 1st and 2nd modes for
arrays of steam turbine blading. Compared with the
existing method of calculation with the same number of
integration portions, calculation with the same number
(Machinery-Engines, TT, v. 6, no. 10) (over)

61-27300

- I. Mikhailov, O. N.
- II. RTS-1869
- III. Department of Scientific and
Industrial Research
(G. Brit.)

9676.283-

FTI-TT-61-446

7351

Office of Technical Services

The Compressibility of Motor Fuels, by
I. V. Astakhov, 16 pp.

RUSSIAN, per, Energo-Mashinostroyeniye, No 9,
1960, pp 8-11. 9663462

FTD MCI-1288/1

Sci - Fuels, Engr

171, 845

25 Oct 61.

CALCULATING LOAD DISTRIBUTION AMONGST TEETH
OF THE HERRINGBONE FASTENING OF MOVING
TURBINE BLADES, WITH ELASTIC DEFORMATION.

RUSSIAN, PER, ENERGO MASHINOSTROENIE,
VOL VI, 1960, PP 29-32.

No 10

NLL M.4659

SCI - EENGR

JUN 62

195,111

INVESTIGATION OF A TWO CHAMBER CYCLONE FURNACE WITH
INTERSECTING JETS, BY A. P. KOVALEV, A. S.
IPPOLITOV.

RUSSIAN, PER, ENERGO MASH, VOL VI, NO 11, 1960,
PP 16-19.

NLL M. 6014

SCI - ENGR
OCT 62

214,706

62-15715

Vidyakin, Yu. A.

DETERMINATION OF THE DAMPING CAPACITIES
OF HIGH-FREQUENCY BLADES AND BLADE AS-
SEMBLIES OF STEAM TURBINES. [1961] [5]p. 4 refs.
C. E. Trans. 2105; [DSIR] NLL M. 4661.
Order from OTS or SLA \$1.10 62-15715

Trans. of Energiy Mashinostroyeniye (USSR) 1960, v. 6,
no. 11, p. 24-25.

DESCRIPTORS: *Steam turbine blades, *Damping,
Vibration, Stainless steel, Thermal stresses.

A statement of experimental data on the effect of the
frequency of blade vibration on damping. A conclusion
is drawn as to the possibility of estimating the damp-
ing of high-frequency blades and their assemblies from
the results of testing low-frequency specimens.

(Author)

(Machinery - Engines, TIT, v. 7, no. 11)

- I. Vidyakin, Yu. A.
- II. CE Trans-2105
- III. DSIR NLL M. 4661
- IV. Central Electricity Generating
Board (Gt. Brit.)

Office of Technical Services

The Test Rig for the Experimental EFT-2
KhTZ Kirov Turbine, by I. A. Lavrov.

RUSSIAN, per, Energomashinostroyeniye,
Vol VI, No 11, 1960, pp 25-27, 31.

NLL Ref: 9022.03 1964 (3368)
(loan copy)

S21
Sep 64

Methods of Controlling the Tightening of Large
Belts on Turbines, by A. U. Bugov,
M. I. Gal'perin.

RUSSIAN, per, Energomash, Vol VI, No 11, 1960,
pp 28-29.

NLL M. ~~3549~~ 3549

Sci - Engr
Jun 62

201, 025

NLL Ref: 1000000 115 0269 (copy)

Some Results of Stress to Rupture Investigations
Under Conditions of Variable Stress and
Temperature, by M. P. Rozanov, E. I. Rusanova.

RUSSIAN, per, Energomash, Vol VI, Nov 1960,
pp 36-39.

BISI 2066

Sci - Engr

196, 220

May 62

list 133

Calculation of Leakage Through Gas Turbine
Labyrinth Glands, by B. T. Bartosh.

RUSSIAN, per, Energomash, Vol VI, No 12, 1960,
pp 22-25.

NLL M. 3323

Sci - Engr

Apr 62

192, 324

(DC-5884)

Session on Convective Heat Exchange, by V. M.
Borishanakiy, 8 pp.

RUSSIAN, per, Energomashinostroyeniye, No 12, 1960,
pp 43-45.

JPRS 8579

Sci - Engr, Phys

Jul 61

160,410

Experience in the Study and Perfection of
Nozzles for Axial Turbine-Type Machines,
by R. M. N. Bogomazov, L. A. Dorfman, 15 pp.

RUSSIAN, per, Energomash, No 1, 1961, pp 8-12.
9676286

FTD-TT-61-410

Sci - Engr

Apr 62

192,673

Comparative Data for Values of Experimental
Heat Transfer Coefficients, by G. V. Nikolayev.

RUSSIAN, per, Energomash, Vol VII, No 1, 1961,
pp 15-18.

MLL M. 3541

Sci - Chem
Jun 62

201,020

Investigation of Heat Transfer and Aerodynamic
Resistance in a Semi-industrial Model of an
Air Heater Constructed of Profile Sheets,
by E. I. Vol'per, et al.
RUSSIAN, per, Energomashinostroeniye, 1961,
no 1, pp 22-25.
NII. RTS 2482 (On Loan or Purchase)

Aug65

288,110

The Temperature Distribution in a Partially Cooled
Root of a Turbine Blade, by B. A. Arkad'yev, 11 pp.

RUSSIAN, per, Energomash, No 1, 1961, pp 38-40.
9676285

TT-
FID/61-410

Sci - Engr

Apr 62

192, 675

Factory Rig Tests of Axial Compressors at the
Leningrad Machine Works, by F. S. Bedcher,
V. Y. B. Reznichenko.

2

RUSSIAN, per, Energiya, Vol VII, No 2,
1961, pp 1-5.

NIL M. 3547

Sci - Engr
Jun 62

201, 022

Comparative Investigations on Heat Transfer
and Pressure Drop of Finned Surfaces, by V. M.
Antuf'yev.

RUSSIAN, per, ~~Energomashinostroyeniye~~, Vol VII,
No 2, 1961, pp 12-16.

MLL N.3429

Sci - Engr

Apr 62

193, 909